

CLIMATE & ECONOMIC DEVELOPMENT PROJECT SOUTHERN CALIFORNIA



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DRAFT Southern California Association of Governments Catalog of Transportation System Management (TSM) GHG Reduction Policy Options

A catalog of state-level, greenhouse gas (GHG)–reducing actions and policy options based on actions undertaken or considered in state-wide climate change action plans by multi-stakeholder groups in a wide cross-section of U.S. states and by state, local, and private participants.

Key to Nominal Rankings of Options in the Tables That Follow:

Potential GHG Emission Reductions ¹	Potential Cost or Cost Savings ^{1, 2}
High (H): At least 1.0 million metric tons (MMt) carbon dioxide equivalent (CO ₂ e) per year by 2030	High (H): \$100 per metric ton CO ₂ e (tCO ₂ e) or above
Medium (M): From 0.1 to 1.0 MMtCO ₂ e per year by 2030	Medium (M): \$0 to \$100/tCO ₂ e
Low (L): Less than 0.1 MMtCO ₂ e per year by 2030	Low (L): Less than \$0/tCO ₂ e
Uncertain (U): Insufficient information to estimate at this time	Uncertain (U): Insufficient information to estimate at this time
¹ Several measures may overlap in terms of emissions reductions and/or cost impacts. “Stand-Alone” estimates provide values for measures that would be implemented independently of other measures, before accounting for potential overlap or synergies	
² Costs are denoted by a positive number. Cost savings (i.e., “negative costs”) are denoted by a negative number.	

Definition of “Priorities for Analysis”:

- **High:** High-priority options will be analyzed first.
- **Medium:** Medium-priority options will be analyzed next, time and resources permitting.
- **Low:** Low-priority options will be analyzed last, time and resources permitting.

Important Note: The state actions are numbered in this catalog solely for convenience in referencing them. Their numbers do NOT reflect a ranking or prioritization of the actions.

Transportation System Management

Note that this listing will be developed more fully during the Transportation System Management (TSM) TWG process. TWG members are encouraged to provide input on policies and programs currently in place to assist in defining baseline conditions. The “Notes” column may be used to record recently enacted policies and programs.

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes / Related Actions
TSM-1. BICYCLE AND PEDESTRIAN FACILITATION						
	Promote Bike Share Programs					
1.2	Promote Bicycle Valets and Safe Bicycle Parking					
1.3	Increase Bike/Walk Trips with Improved Streets and Facilities					
1.4	Promote Transportation Alternative by Third Parties					
1.5	Subsidize Bicycles and Bicycle Accessories					
TSM-2. EDUCATION						
2.1	Promote Maintenance and Driver Training					
2.2	Distribute Educational Information					
TSM-3. EFFICIENCY						
3.1	Develop Anti-Idling Regulations for Heavy-Duty Vehicles					

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes / Related Actions
3.2	Develop Anti-Idling Regulations for Construction Equipment					
3.3	Encourage Truck Stop Electrification					
3.4	Promote Truck Refrigeration Units					
3.5	Reduce Locomotive Fuel					
3.6	Encourage Cold Ironing at Ports					
TSM-4. FREIGHT						
4.1	Facilitate Freight Logistics Improvements					
4.2	Allow Increased Size and Weight of Trucks					
4.3	Facilitate Pre-Clearance at Scale Houses					
4.4	Promote Freight Villages/ Consolidation Centers					
4.5	Support Procurement of an Efficient Heavy-Duty Vehicle Fleet					
TSM-5. MONITORING						
5.1	Help Establish Baselines/Guidelines to Create Green Transportation Standards					

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes / Related Actions
TSM 6. INTELLIGENT TRANSPORTATION SYSTEMS (ITS)						
6.1	Use Intelligent Transportation Systems to Share Information with Drivers					
6.2	Synchronize Traffic Signals					
6.3	Encourage Bus Tracking Systems and Information Sharing					
6.4	Provide Transit Information Easily Understandable and in Multiple Languages					
TSM-7. FLOW						
7.1	Lower and/or Enforce Speed Limits					
7.2	Develop Traffic Calming Systems					
7.3	Increase Use of HOV, HOT and Dedicated BRT Lanes					
7.4	Increase Bus Traffic Signal Preemption					
TSM-8. MODE SHIFT						
8.1	Encourage Government Employees to Use Alternative Transportation					
8.2	Encourage Alternative Transportation					

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes / Related Actions
8.3	Tap Funding Sources for Alternative Transportation					
8.4	Support School Bus Use					
8.5	Encourage Large Businesses to Develop Alternative Transportation Plans					
TSM-9. TRANSIT FACILITATION						
9.1	Expand Transit Services					
9.2	Improve Transit Stops and Stations					
9.3	Encourage Regional Transit Programs					
9.4	Facilitate Intermodal Travel					
9.5	Encourage Intermodal Travel					
TSM-10. FLEET						
10.1	Encourage Old Vehicle and Equipment Retirement for General Public					
10.2	Encourage Old Vehicle and Equipment Retirement for Construction Vehicles					
10.3	Expand Use of Alternative Fuels					
10.4	Develop Alternative Fuel Stations					

Option No.	GHG Reduction Policy Option	Potential GHG Emission Reductions	Cost per Ton	Externalities, Feasibility Considerations	Priority for Analysis	Notes / Related Actions
10.5	Convert Street Sweeping and Refuse Vehicles to Alternative Fuels					
10.6	Replace Local Government Fleets with Alternative Fuel Vehicles					
10.7	Convert Transit Buses to Alternative Fuels					
10.8	Replace Gasoline Powered Mowers with Electric Mowers					
10.9	Require Zero Emission Forklifts					
TSM-11. USER FEES						
11.1	Adopt Congestion Pricing					
11.2	Adopt Emission Based Tolls					
11.3	Implement Urban and Intercity Road Tolls					
11.4	Use Toll Revenue to Fund Alternative Fuel Vehicles					
11.5	Implement Parking Pricing, Excise Tax and/or Supply Restrictions					
11.6	Require Mileage Based Insurance					
11.7	Covert Existing Roads to Toll Roads					

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11.8	Implement VMT Tax					

Acronyms

ASTM = American Society of Testing Materials

ATVs = all-terrain vehicles

B2 = fuel mixture of 2% biodiesel and 98% gasoline

BRT = Bus Rail Transit

CCI = Cross-Cutting Issues

CO₂ = carbon dioxide

CMAQ = Congestion Management and Air Quality

DOT = Department of Transportation

E10 = fuel mixture of 10% ethanol and 90% gasoline

EPA = U.S. Environmental Protection Agency

GHG = greenhouse gas

HOT = high occupancy toll lanes

HOV = high-occupancy vehicles

LCF = low-carbon fuel

LRT = light rail transit

LEED = Leadership in Energy and Environmental Design

MPG = miles per gallon

MPO = metropolitan planning organization

R&D = research and development

RFS = renewable fuel standard

SLR = sea level rise

TIF = tax increment financing

TDRs = transferable development rights

TRU = truck refrigeration unit

TWG = Technical Work Group

VMТ = vehicle miles traveled